Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-67. (Cancelled)

68. (Currently amended) A population of ~~mesenchymal precursor~~ cells ~~(MPCs)~~ enriched for 3G5 ~~positive~~ cells, wherein such 3G5 ~~positive~~ cells are mesenchymal precursor cells which comprise mesenchymal precursor cells capable of giving rise to colony forming unit-fibroblast (CFU-F), and wherein at least 30% of the total cells of the population are positive for the marker 3G5 ~~can give rise to progeny consisting of two or more tissue types~~.

69. (Previously presented) The enriched population of claim 68 wherein the MPCs are enriched from a perivascular niche within a non-haemopoietic vascularised tissue.

70. (Previously presented) The enriched population of claim 68 wherein the MPCs are enriched from a tissue of the group consisting of skin, liver, kidney, heart, adipose tissue, teeth, dental pulp, retina, brain, hair follicles, intestine, lung, spleen, lymph node, thymus, pancreas, bone, ligament, bone marrow, tendon and skeletal muscle.

71. (Previously presented) The enriched population of claim

68 wherein the MPCs are also positive for one or more of the perivascular cell markers MUC18/CD146 and alpha-smooth muscle actin.

72. (Previously presented) The enriched population of claim 68 wherein the enriched population comprises at least 0.1% STRO-1^{bri} MPCs.

73. (Previously presented) The enriched population of claim 68 wherein the enriched population comprises at least 1% STRO-1^{bri} MPCs.

74. (Previously presented) The enriched population of claim 68 wherein the MPCs are positive for the markers STRO-1^{bri}, MUC18/CD146, and alpha-smooth muscle actin.

75. (Cancelled)

76. (Cancelled)

77. (Previously presented) The enriched population of claim 68 wherein the MPCs are positive for one or more markers selected from the group consisting of THY-1, VCAM-1, ICAM-1, PECAM-1, CD49a/CD49b/CD29, CD49c/CD29, CD49d/CD29, CD29, CD61, integrin beta 5, 6-19, thrombomodulin, CD10, CD13, SCF, STRO-1^{bri}, PDGF-R, EGF-R, IGF1-R, NGF-R, FGF-R and Leptin-R (STRO-2).

78. (Previously presented) The enriched population of claim 68 wherein the MPCs are negative for the haemopoietic markers CD45, CD34, and glycophorin A.

79. (Previously presented) The enriched population of claim 68 wherein the MPCs have the capacity to be induced to differentiate to form progeny cells comprising one or more of at least osteoblast, odontoblast, dentin-producing, chondrocyte, tendon, ligament, cartilage, adipocyte, fibroblast, marrow stroma, osteoclast- and hematopoietic-supportive stroma, cardiac muscle, smooth muscle, skeletal muscle, pericyte, vascular, epithelial, glial, neuronal, astrocyte or oligodendrocyte cell type.

80. (Previously presented) An enriched population of claim 68 comprising at least 0.1% MPCs capable of forming a clonogenic colony.

81. (Previously presented) An enriched population of claim 68 comprising at least 1% MPCs capable of forming a clonogenic colony.

82-106. (Cancelled)